SYSTEM FOR AND METHOD OF TESTING A MICROELECTRONIC DEVICE USING A DUAL PROBE TECHNIQUE

Abstract

A system (10) for and method of testing a device under test (DUT) (12) having a plurality of probe pads (14) utilizing a dual probe technique to overcome contact resistance that may be present. The system comprises a plurality of sensing probes (30) and a plurality of forcing probes (32) arranged in pairs consisting of one sensing probe and one forcing probe. Each pair of sensing and forcing probes is provided for contacting one of the probe pads on the DUT. Each forcing probe is in electrical communication with a power supply (20) via a switching matrix (24), and each sensing probe is in electrical communication with a voltage meter (52) via the switching matrix. During testing, at least one of the power supplies provides a voltage to a corresponding forcing probe in contact with a particular probe pad. The sensing electrode at that particular probe pad senses a voltage, which is measured by the voltmeter and is used by a feedback controller (56) to adjust the voltage supplied by the corresponding power supply to the forcing probe.